

1 ABSTRACT OF THE DISCLOSURE

2 The invention encompasses a method of forming silicon nitride on
3 a silicon-oxide-comprising material. The silicon-oxide-comprising material
4 is exposed to activated nitrogen species from a nitrogen-containing plasma
5 to introduce nitrogen into an upper portion of the material. The
6 nitrogen is thermally annealed within the material to bond at least some
7 of the nitrogen to silicon proximate the nitrogen. After the annealing,
8 silicon nitride is chemical vapor deposited on the nitrogen-containing
9 upper portion of the material. The invention also encompasses a method
10 of forming a transistor device. A silicon-oxide-comprising layer is formed
11 over a substrate. The silicon-oxide-comprising layer is exposed to
12 nitrogen from a nitrogen-containing plasma to introduce nitrogen into an
13 upper portion of the layer. The nitrogen is thermally annealed within
14 the layer to bond at least some of the nitrogen silicon proximate the
15 nitrogen. After the annealing, silicon nitride is chemical vapor deposited
16 on the nitrogen-containing upper portion of the layer. At least one
17 conductive gate layer is formed over the silicon nitride, and defines a
18 gate layer. A pair of source/drain regions are formed proximate the
19 gate layer and gatedly connected to one another through a channel
20 region that is beneath the gate layer. Additionally, the invention
21 encompasses transistor device structures.